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ABSTRACT

The core of the case for bilingual education is that the principles underlying successful bilingual education emphasize the same factors that underlie successful language acquisition in general: understanding messages and obtaining comprehensible input; using background knowledge; and the development of literacy. The importance of the first language is discussed, and arguments against bilingual education (including the case for immersion--and submersion--programs as alternatives for limited English proficient children) are examined and rebutted. An argument is made for strengthening bilingual education by providing a richer supply of primary language reading materials. Sheltered subject matter teaching is also supported as a contributor to second language development and as a valuable part of bilingual education. It is concluded that properly organized bilingual programs work. Contains 46 references. (LB)

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Bilingual Education: A Focus On Current Research

Stephen D. Krashen

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The Research Supporting Bilingual Education

The core of the case for

bilingual education is that the principles underlying successful bilingual education are the same principles that underlie successful language acquisition in general. These principles are:

(1) We acquire a second language by understanding messages, by obtaining comprehensible input.

(2) Background knowledge can help make second language input more comprehensible, and can thus assist in the acquisition of the second language.

(3) The development of literacy occurs in the same way as second language acquisition does. As Goodman (1982) and Smith (1982) have put it, "we learn to read by reading," by making sense of what is on the page. In turn, reading is the major source of our competence in vocabulary, spelling, writing style, and grammar. (For research evidence supporting these principles, see Goodman, 1982; Smith, 1982; Krashen, 1985a, 1985b, in press.)

The importance of the first language

One of the most salient features of a bilingual education program is the use of the first language as the medium of instruction. The first language can help in the following ways:

(1) It supplies background knowledge, which can make English input more comprehensible.

(2) It enhances the development of basic literacy. This is a two-step argument:

a. If we, in fact, learn to read by reading, it will be much easier to learn to read in a language one already knows, since written material in that language will be more comprehensible.

b. Once you can read, you can read. This ability transfers to other languages that may be acquired.

(3) It helps in what we call "advanced literacy"—the ability to use language, oral and written, to solve problems. If students understand the composing process in one language, for example, they will be able to utilize it in other languages they acquire. (For supporting data and detail, see Cummins, 1981; Krashen, 1985a, 1985b, 1990.)

There are other ways the first language can help. Research evidence suggests that advanced first language development has cognitive advantages (see, e.g., Hakuta, 1986), practical advantages (Simon, 1980), and promotes a healthy sense of biculturalism (Cummins, 1981).

Explaining bilingual education: "The Paris argument"

It is not easy to explain the theory underlying bilingual education to the public. I have had some success, however, with the following explanation, which I call "The Paris Argument." Pretend that you have just received, and accepted, an attractive job offer in Paris. Your French, however, is limited (you had two years of French in high school and one semester in college, and it was quite a while ago). Before your departure, the company that is hiring you will send you the following information, in English: What to do when you arrive in Paris, how to get to your hotel, where and how to find a place to live, where to shop, what kinds of schools are available for your children, how French companies function (how people dress in the office, what time work starts and ends, etc.), and specific information about the functioning of the company and your responsibilities.

It would be very useful to get this information right away in English, rather than getting it gradually, as you acquire French. If you get it right away, the world around you will be much more comprehensible, and you will thus acquire French more quickly.

Anyone who agrees with this, in my opinion, agrees with the philosophy underlying bilingual education.

Criticisms of Bilingual Education

The arguments most often heard against bilingual education are: (1) it doesn't work—research on bilingual programs is inconsistent and contradictory, and (2) there is a better option—immersion.

There is a widespread perception that research shows bilingual education is a failure and that students in bilingual education programs do not acquire proficiency in English. What are the facts?

Comparing bilingual education and all-English medium programs

First, when "unexamined" bilingual programs are compared to "submersion" programs (programs using English as the medium of instruction with no special modification for meeting the linguistic needs of limited English proficient (LEP) students), or submersion with pull-out English as a Second Language (where LEP students are separated from English proficient students for some part of the school day in order to receive English as a Second Language (ESL) instruction), there is typically no difference in terms of English language achievement. ("An unexamined" program is simply one that investigators have labeled "bilingual" without providing additional detail about how the program was organized. Such programs may or may not be fully consistent with the principles discussed earlier.)

Unfortunately, the results of these comparisons have been interpreted as negative, as showing that bilingual education doesn't work. Some of the problem is how the results are expressed. Rossell and Ross (1986), for example, reported the following results for English language achievement when transitional bilingual education and submersion programs are compared:

	number of studies
transitional bilingual education better	8
no difference	14
submersion better	6

Table 1

Comparison of "unexamined" transitional bilingual education and submersion programs

Rossell and Ross concluded that "seventy-one percent (of the studies) show transitional bilingual education (TBE) programs to be no different or worse" than submersion (p. 399). This is, of course, true—in 20 out of 28 cases, TBE is no better or worse. But one could also conclude that TBE is just as good, if not better, than submersion programs 79 percent of the time (22 out of 28 cases).

Several scholars have pointed out that when bilingual education is shown to be just as effective as all-English programs, this is a remarkable result since it means that the children have acquired just as much English with significantly less exposure to English. This confirms the underlying theory of bilingual education. Some of the critics—but not all—have missed this point entirely (see Rossell and Ross, 1986, p. 407, for this discussion).

A recent study (Rossell, in press) merits detailed discussion because of the importance attached to its conclusions in the popular press. Rossell compared a program labeled bilingual education and a pull-out ESL program in the Berkeley (California) Unified School District. No description of Berkeley's bilingual education program was provided, other than the fact that it is labeled "bilingual education" and that instruction was in Spanish 30 to 50 percent of the time. Rossell concluded, after a series of regression analyses, that there was no difference between the two programs. Interestingly, there is evidence of a slight superiority for bilingual education. In her Table 1 (IDEA Proficiency Test scores for students in grades K–12), the regression coefficient for participation in bilingual education is positive and reaches the .10 level for a one-tailed test (Rossell would probably call for a two-tailed test here, however).

In another analysis Rossell compared California Test of Basic Skills (CTBS) scores for bilingual and ESL pull-out students after "reclassification." Rossell concluded that these data show no difference between the two groups. For each subtest of the CTBS, however, the regression coefficient for participation in bilingual education was positive, and in the case of math, it reached the .05 level for a two-tailed test, which Rossell did not indicate.

Rossell also compared Berkeley LEP children's performance on California Assessment for Progress (CAP) tests to performance by LEP children in two districts considered to have "exemplary" bilingual programs, Fremont and San Jose (Krashen and Biber, 1988). Rossell reported no significant difference among the children in the three districts in reading, and reported that the Berkeley students excelled in math.

There are several problems with this conclusion. First, this analysis does not compare gain scores nor does it show how rapidly children reach norms. It considers LEP children as a group. This comparison is only valid if, in fact, LEP children in all three districts entered their respective systems at the same level of competence, and if all three districts used similar criteria for exiting children. This may not be the case. According to Rossell's analysis of reclassified children in Berkeley, many children scored very well on CTBS long before they were exited—in CTBS Reading, for example, children in ESL pull-out scored at the 33rd percentile two years before reclassification and at the 54th percentile one year before, while children in bilingual education who were reclassified scored at the 35th percentile two years before reclassification and near the 60th percentile one year before. CTBS Language data are similar, and scores in CTBS Math are even higher, with LEP children in Berkeley scoring above the 50th percentile four years before reclassification. Thus, Berkeley scores may look higher because some high-scoring children were retained in these programs longer.

Even if the analysis were a valid one—if children in all three districts entered at the same level and all three districts had equal reclassification criteria—Rossell's results would not necessarily reflect the quality of bilingual education in the Berkeley district. The comparison districts were chosen because their *bilingual* programs were exemplary. Yet, the cross-district comparison performed by Rossell is of *all* LEP children in each district, taken as a group. A minority of the children in the sample were in bilingual education. According to Rossell's data, only 31 percent of the 108 schools studied had a bilingual education program (33 schools). Moreover, it is quite likely that not all

of the LEP children in these 33 schools were in the bilingual program. (Interestingly, according to Rossell's analysis, schools that had bilingual education reported slightly higher CAP scores; the regression coefficient, however, was not significant.)

Several studies have shown that bilingual education programs can be as effective as all-English programs. For example, Willig (1985) performed a meta-analysis on bilingual education evaluations originally studied by Baker and de Kanter (1983), and concluded that there was a modest overall positive effect for bilingual education, despite the fact that many of the studies (65 percent) were short-term, lasting one year or less. Willig also found that bilingual education looked better when the research designs used in the studies were better. Here are some examples:

• When the comparison group had elements of bilingual education, there was no difference. But when the comparison group did not have elements of bilingual education, the bilingual group was superior.

• When the bilingual program was "unstable" (frequent teacher turn-over, disorganization), the comparison group was better. When the bilingual group was stable, it was superior.

• When the comparison group contained graduates of bilingual education, there was no difference. When the comparison group did not contain graduates of bilingual education the bilingual group was better. As Crawford (1989) put it, Willig showed that on a level playing field, bilingual education could outscore the competition.

Recent research shows that when bilingual programs are set up correctly, they work very well. In our survey of successful programs in California (Krashen and Biber, 1988), we found that students in well-designed bilingual programs consistently outperformed comparison students, and did very well compared to local and national norms, often reaching national norms between grades three to six. According to the view of language acquisition presented earlier in this paper, we defined a "well-designed" program as one that had the following characteristics:

(1) Comprehensible input in English, in the form of high quality ESL classes, and sheltered subject matter teaching (comprehensible subject matter teaching in the second language; see below).

(2) Subject matter teaching in the first language, without translation. This provides background knowledge that will make English input more comprehensible.

(3) Literacy development in the first language, which will transfer to the second language.

Our report has been criticized. Imhoff (1990) maintains that the programs in Krashen and Biber (1988) worked because they were in "exemplary schools that are well-funded, staffed by highly trained and dedicated teachers, and composed of small classes of selected students" (p. 52). To my knowledge, not all the schools described in our monograph were well-funded. The teachers did receive some extra in-service training in current theory and methodology, but to say that they were more dedicated is not only unfounded but is also an insult to teachers in the comparison groups. Nearly all of the students in the programs were unselected; there is no reason to suspect they were different than students in comparison groups, and there is no reason to suspect differences in class size.

Rossell has also criticized Krashen and Biber (1988), pointing out that one of

the districts we studied, Fremont, took other positive action for LEP children in their bilingual program in addition to bilingual education (preschool, extra English reading, more parental involvement). While this could mean that these additional efforts were responsible for the Fremont children's outstanding performance, it is certainly not counterevidence to the hypothesis that bilingual education is effective, a hypothesis that has a great deal of additional supporting evidence.

Porter (1990a, 1990b), who repeatedly insists that bilingual education "just doesn't work" (Porter, 1990a, p. 223), presents several kinds of arguments. In some cases, she is simply anti-bad bilingual education, attacking practices that many supporters of bilingual education would agree are questionable. These include delaying exposure to written English until students reach grade level in Spanish (Porter, 1990a, p. 22), and programs in which teachers are encouraged to code-switch in class (Porter, 1990a, p. 31).

Other attacks are simply unfounded and are not supported by the data she presents. Porter claims, for example, that in Boston "several hundred" bilingual education students had not learned enough English to be exited by grade seven (Porter, 1990a, p. 60). Porter does not tell us, however, whether this is a small or large percentage of the total number of students served (if it is a small percentage, the data would indicate that the program was successful), what kind of bilingual education was used, or what the characteristics of these students were.

Another example is her report that only 4000 out of 7000 applicants passed an "English-language aptitude test" given by New York's Consolidated Edison company in 1988. None of those who passed, according to Porter, was a graduate of New York City's bilingual education program (Porter, 1990b, p. 24). Without more details, however, it is impossible to draw any conclusions from such a statement. Porter does not tell us, for example, how many of those who took the test were ever limited English proficient students or how many had even had bilingual education.

The immersion argument

Another popular argument against bilingual education is the claim that there is a better way—immersion. Imhoff (1990) supports this view: "The language teaching method that is generally the fastest, most efficient, and most effective is the Berlitz or immersion method. . ." (p. 50). Imhoff does not present evidence supporting his view, but could have cited Rossell and Ross (1986), who claim that immersion students outperformed students in bilingual education in English language proficiency in six out of seven studies. Before reviewing this claim we need to define the term "immersion." There are, to my knowledge, at least four definitions:

(1) *Submersion*, or "sink or swim." There is no support among language education professionals for submersion for LEP children today.

(2) *Canadian-style immersion* (CSI). As is well-known, CSI is a program in which middle-class children receive much of their subject-matter instruction through a second language. Efforts are made to make sure the language they hear is comprehensible. Children in these programs learn subject matter successfully, and acquire a great deal of the second language.

Consideration of the principles of bilingual education presented earlier leads to the

conclusion that CSI is similar, if not identical, to bilingual education. Children in CSI receive comprehensible input in the second language and develop literacy and subject matter knowledge in their first language, both outside of school and in school. As noted earlier, children in CSI are typically middle class, and do a considerable amount of reading in English outside of school (suggested by Cummins, 1977 and confirmed by Eagon and Cashion, 1988). Even in early total immersion programs, a great deal of the curriculum is in English, with English language arts introduced around grade two. By grade six, half the curriculum of early total immersion is in English. Most important, the goal of CSI is bilingualism, not the replacement of one language with another.

(3) *Sheltered subject matter teaching.* Sheltered subject matter teaching was inspired by the success of CSI. It is subject matter teaching done in a second language but made comprehensible. Research at the university level has confirmed that students in sheltered subject matter classes acquire impressive amounts of the second language and learn subject matter as well (Edwards, Wesche, Krashen, Clément and Kruidinier, 1983; Lafayette and Buscaglia, 1983; Hauptman, Wesche and Ready, 1988; Sternfeld, 1989).

Sheltered subject matter teaching is not a competitor to instruction delivered in the first language, but makes its contribution in a different way. As indicated earlier, both sheltered subject matter teaching and ESL provide comprehensible input directly, while teaching in the first language makes an indirect, but powerful contribution by providing background knowledge and literacy.

Porter (1990a) approves of sheltered subject matter teaching ("content-based language teaching"), but feels that "it cannot be used in bilingual programs that require subjects to be taught in their native language for several years" (p. 125). Subject matter instruction and sheltered subject matter teaching can be sensibly combined, however. In what has been called the "Eastman Plan" (Krashen, 1985a, 1985b; Krashen and Biber, 1988), beginning limited English proficient students study core subject matter subjects in the primary language. When the students reach the intermediate level, subjects such as math and science are given as sheltered subject matter in English, since these subjects do not require as high a level of English language proficiency as social studies or language arts. Subjects requiring more abstract use of language are still taught in the first language at this stage, which will provide additional subject matter knowledge and literacy development.

Children with more competence in academic English study math and science in the mainstream. At this stage, social studies is taught in English using sheltered techniques, with continuing literacy development in the first language. Eventually, all core subjects are taught in English. An example of such a plan is presented in Table 2.

Such a plan provides comprehensible instruction at every step. It is superior to an all-English program, because it provides continuing development in the first language, which means continuous growth in subject matter knowledge and literacy development. It is better than a program that forces a child to jump from the first language class directly to the mainstream; with the sheltered class as a transition, the child will acquire a substantial amount of the English academic language needed.

Note that according to the plan in Table 2, children continue on to do

advanced study in their first language—social studies, language arts, or related topics (enrichment). The advantages of advanced first language development were listed earlier. This part of the program can take the place of the foreign language study option for the former LEP student.

(4) *Structured immersion.* Also inspired by the success of CSI, structured immersion (SI) is similar to sheltered subject matter teaching in some ways, but differs in other ways. As described by Gersten and Woodward (1985), SI has these four characteristics:

1. Comprehensible subject matter instruction to second language acquirers.
2. Use of the first language when necessary for explanation, but this is kept to a minimum.
3. Direct instruction of grammar.
4. Pre-teaching of vocabulary.

While the first two characteristics have support in the research literature, there is little evidence supporting the efficacy of direct grammar instruction (for reviews, see Krashen, 1984; Hillocks, 1986) and pre-teaching vocabulary has not been found to be consistently effective (Mezynski, 1983).

Only a few studies of SI have been done. Gersten and Woodward (1985) report that children in SI in Uvalde (Texas) reached the 30th percentile of the reading comprehension subtest of the Metropolitan Achievement Test at the end of grade three. After leaving SI, however, they dropped to the 15th and 16th percentile in grades five and six (Becker and Gersten, 1982). While this performance was better than a comparison group, it is still dismal. Children at this grade level who have had proper bilingual education do much better (Krashen and Biber, 1988). (Uvalde children did somewhat better on the WRAT reading test, which emphasizes "decoding skills.")

In a second study of SI, Gersten and Woodward (1985) claimed that more LEP children in a California school district in SI performed at or above grade level than comparison children in bilingual education. There were several serious problems with this study, however. First, no details were provided about the bilingual education program. Second, the sample size was small (28 children in bilingual education, 16 in SI). If performance of just a few children had varied slightly, the results of

Table 2

Plan combining ESL, sheltered subject matter teaching, and instruction in the first (home) language

Level	Mainstream	Sheltered/ESL	First Language
Beginning	art, music, PE	ESL	all core subjects
Intermediate	art, music, PE	ESL, math, science	language arts, social studies
Advanced	art, music, PE, math, science	ESL, social studies	language arts
Mainstream	all core subjects		enrichment

this study would have looked very different. Third, the study only followed children until grade two.

Gersten and Woodward reported that the SI children did extremely well in a follow-up study, achieving high levels of performance (65th percentile) two years later, but only two groups of nine children each were studied, and no comparison with bilingual education was made. Similarly, SI students studied in Gersten (1985) showed very good gains over the one year they were followed, but no comparison group was used.

Effectiveness of immersion programs for LEP children

We are now ready to return to the claim made by Rossell and Ross (1986) that immersion was more effective than bilingual education in English language development in six out of seven studies. As listed in Rossell and Ross' Table 1 (p. 398), the six studies in which immersion was considered superior were:

1. Gersten, 1985;
2. Peña-Hughes and Solís, 1980;
3. Barik and Swain, 1978;
4. Barik, Swain and Nwanunobi, 1977;
5. Bruck, Lambert and Tucker, 1977; and
6. Genesee, Lambert and Tucker, 1977.

Study 1 (Gersten, 1985) is the SI study described previously. As noted earlier, it suffers from a very small sample size, and no description is given of the kind of "bilingual education" used for the comparison group.

Study 2 (Peña-Hughes and Solís, 1980) is unpublished, but it is discussed in several published papers. It is a comparison of two programs in McAllen (Texas). While Rossell and Ross label these "immersion" and "bilingual education," Willig (1985, 1987) classified the immersion group as bilingual education, noting that the "immersion" group had instruction in English in the morning and instruction in Spanish reading in the afternoon. In addition, the explicit goal of the immersion program was bilingualism—development of both languages.

Also, the group Rossell and Ross label "bilingual education" did not, apparently, have an ideal program. According to an article in the *Wall Street Journal* (Schorr, 1983), classes "were conducted partly in Spanish and partly in English," suggesting concurrent translation, a method shown to be ineffective (Legarreta, 1979). What apparently happened in McAllen is that children in a good bilingual program outperformed children in a poor bilingual program.

The remaining four studies are all studies of Canadian French immersion. Studies 3 and 4 (Barik, Swain and Nwanunobi, 1977; Barik and Swain, 1978) are studies in which early total immersion is compared to partial immersion. In partial immersion, there is less teaching in French; from the beginning, some subjects are taught in English and some in French.

Rossell and Ross are not explicit concerning why these studies were included, but the idea seems to be that early total immersion is similar to all-English "immersion" for LEP children, while partial immersion is similar to bilingual education. Since Barik et al., and Barik and Swain show that children in early total immersion acquire more French than children in partial immersion programs, "immersion," it is concluded, is better than bilingual education.

But Canadian early total immersion is not the same as an all-English immersion

program for LEP children. In fact, both versions of CSI under consideration here, early total and partial immersion, are quite similar to bilingual education. As noted earlier, much of the CSI curriculum is in the first language, English, and children in these programs come to school with a great deal of literacy development in the primary language. Since children in both programs come to school so well-prepared, it is reasonable to expect that more exposure to the second language, French, will result in more acquisition of French.

Many LEP students in the United States, however, do not come to school with these advantages. An all-second language curriculum will be much less comprehensible to them, even if carefully "sheltered." While sheltering will clearly help, supplying background knowledge and literacy in the primary language is a sure way to ensure that instruction in English will be comprehensible. Rossell and Ross are clearly aware of this argument. They point out, in defense of their position, that CSI programs have worked for working class students as well as middle class students. A few reports of immersion programs for working class children have been published (e.g., Holobrow, Genesee, Lambert, Gastright and Met, 1987). While these children have done well, evaluations have so far been limited to grade two and below. Also, as Genesee (1983) notes, none of these children "can be said to come from destitute or 'hard-core' inner-city areas" (p. 30).

We thus know very little about how well working class children do in second language immersion programs and nothing about how well under-class children would do. What we do know is that children of lower socioeconomic background experience less print outside of school (e.g., Feitelson and Goldstein 1986), and that the richness of the print environment is related to literacy development (Krashen, 1985a). We also know that these children do quite well in well-designed bilingual programs—programs that provide literacy development in the primary language.

Study 5 (Bruck, Lambert and Tucker, 1977) compares children in total immersion (CSI) to native speakers of French, and thus has no bearing at all on the question of bilingual education versus immersion. Study 6 (Genesee, Lambert and Tucker, 1977) is listed as an unpublished manuscript. The same authors, however, have published several reports comparing CSI to "Core French" (see, for example, Genesee, Tucker and Lambert, 1978). Core French is simply "foreign language in the elementary school," standard foreign language instruction for about one period per day. If Rossell and Ross are indeed referring to these comparisons, they are, I assume, arguing once again that early total immersion is similar to an all-English "immersion" program for LEP children in the United States, and, apparently, that core French is similar to bilingual education. Once again, early total immersion is similar to bilingual education, not all-English "immersion." Also, it is not hard to see why Canadian children in early total immersion acquire more French than children in core French. Children in both programs are equally well-prepared for school, and children in early total immersion receive vastly more comprehensible input in the second language.

There is one more case that warrants discussion since it has caused some confusion. This is a report that students in the "bilingual immersion" program in El Paso (Texas) outperformed transitional bilingual education (TBE) students. According to Porter (1990a), in El Paso's bilingual immersion program, "all subjects are taught in English, although Spanish is used occasionally to reinforce a new concept" (1990a, p. 68). Porter, in fact, in a *Washington Post* article (Porter, 1990b,

p. 24), refers to bilingual immersion as an "English-language 'immersion' program." El Paso's bilingual immersion, however, like the McAllen (Texas) "immersion" program, is clearly bilingual. It contains a "native language cognitive development" component (NLCD), described by the El Paso Independent School District (1989b) as follows:

> NLCD is taught for 60 to 90 minutes per day. The objective of this component is to develop concepts, literacy, cognition, and critical thinking skills in Spanish. It is during this period that instruction and student-teacher interaction are entirely in Spanish. The more demanding content area concepts are also introduced during NCLD, particularly in first grade. (p. 54)

The two programs differed not only in amount of first language use, but also in other important ways. The bilingual immersion program employed the Natural Approach for ESL, a whole language approach to language arts, and sheltered subject matter teaching, while TBE in El Paso (referred to in the El Paso reports as SB 477) used a skills-oriented approach, as described by the El Paso Independent School District (1987):

> It must be understood that BIP (bilingual immersion program) is not an English version of the SB 477 instructional program. SB 477 is built on a philosophy that advocates traditional concepts of teaching language . . . SB 477 focuses the child's attention on the details of language such as phonetic sounds and grammar rules. (p. 9)

While TBE used some whole language and Natural Approach activities, the most commonly used materials in TBE were basal texts and workbooks (El Paso Independent School District, 1987, p. 18). According to a 1989 report, whole langage and comprehensible input-based methodology had been gradually introduced into SB 477 from 1985 to 1987, but "observations indicate that the changes have not been fully implemented by SB 477 teachers" (El Paso Independent School District, 1989a, p. 10).

To summarize, "immersion" in El Paso combined instruction in the first language with comprehensible-input based methodology, similar to the Eastman plan described earlier in the text. The "bilingual" program (SB 477) used more instruction in the first language, but focused more on skill-building. It appears that the bilingual immersion program was more consistent with the principles of language and literacy development and first language use presented in this paper.

Strengthening Bilingual Education by Reading in the Primary Language

Before concluding, I wish to add my own criticism of bilingual education. In my opinion, bilingual programs will not realize their true potential unless they do a much better job of providing a print-rich environment in the primary language. Research indicates that reading, especially free voluntary reading, is a major source of both language and literacy development, as well as knowledge. Reading in the primary language will thus provide much of the "common underlying proficiency" (Cummins, 1981) that helps ensure English language development. In addition, a reading habit in the first language will, most likely, transfer to the second language. Finally, reading contributes a great deal to advanced first language development.

The current situation is not good. The following excerpt, from informal notes made by Sandra Pucci at the University of Southern California, illustrates the point.

Ms. Pucci visited a book fair at a bilingual elementary school:

> The book fair, an annual event at the school, was going on when I was there, and the kids were fairly excited, at least the ones whose parents had given them money to buy a book or two. I went in to check out the situation, and after receiving an enthusiastic 'yes' as to whether they were selling books in Spanish, had a look at just what there was. The display consisted of eight cases of books of four shelves each. There was one shelf of Spanish books among them. On this shelf were 12 different titles, but only two . . . appeared to be above a third grade reading level. There were around five copies of each book. . . . At that given moment, there were about 20 kids miling about, mostly looking at the English shelves . . . the Spanish books were placed at the bottom, and were actually quite hard to get to.

Unfortunately, the situation at this school is typical. The good news is that the solution is straightforward—a print-rich environment.

Conclusions

Criticisms of bilingual education, as noted earlier, rest on two assertions: First, it has been claimed that bilingual programs don't work, and that the evidence for them is inconsistent and contradictory. The research, however, is remarkably consistent. Properly organized bilingual programs do work, and even "unanalyzed" bilingual programs appear to work at least as well as all-English programs.

Second, it has been asserted that "immersion" is superior to bilingual education. This has not been demonstrated. As we have seen, there are several definitions of the term "immersion." One of them, submersion, is rejected by all professionals as an option for LEP children. Canadian-style immersion is quite similar to bilingual education. Sheltered subject matter teaching makes a different kind of contribution to second language development, and is a valuable part of bilingual education. The research support for structured immersion is, at best, mixed. Finally, much of the research claiming to show that immersion is superior to bilingual education actually consists of comparisons of different kinds of bilingual programs or comparisons of different varieties of Canadian-style immersion.

Bilingual education can be improved. But there is little doubt that bilingual education works.

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